AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
J	1 | 3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0002	15-Jul-2009	W16L6990410001	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
W912PQ W912PQ - USP&FO-NY ATTN: MNPF-PC 330 OLD NISKAYUNA ROAD LATHAM NY 12110-3514	W912PQ	See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. W912PQ-09-B-0002
	X	9B. DATED (SEE ITEM 11) 04-Jun-2009
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [X] is extended, [ ] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SEE SF30 BLOCK 14 CONTINUATION PAGE

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 16-Jul-2009

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text:

AMENDMENT 0002

A. This amendment is issued to incorporate into and make part of IFB W912PQ-09-B-0002 the following changes:

1. Clarify the amount of liquidated damages as $191.00 for each day of delay.
2. Clarify the amount of the bid bond require as 20% of the bid price or $3,000,000 whichever is less.
3. Provide the requirement for the sliding gate. The gate shall be 22' long and 6' tall with a vertical anti-climber. The gate requires all new gate support posts; normally they are 4" diameter. The anti-climber should be specified. The contractor will need to remove the existing two-leaf swing gate and associated posts to accommodate the new sliding gate. The gate operator is specified
4. Provide a specification for aluminum windows. Specification section 08520 is attached hereto.
5. Provide a specification for Steel Pipe Bollards. Specification Section 02843 is attached hereto.
6. Provide Masonry Details at Existing Structure – Detail Attached.

C. The bid due date of 22 July, 2009 at 2:00 EST is extended to 23 July, 2009 at 2:000 EST.

D. All other solicitation provisions remain unchanged.

E. This amendment must be acknowledged. See Block 11 above.

SECTION 00010 - SOLICITATION CONTRACT FORM

The required response date/time has changed from 22-Jul-2009 02:00 PM to 23-Jul-2009 02:00 PM.

SECTION 00700 - CONTRACT CLAUSES

The following have been modified:

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of $191.20 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.228-1 BID GUARANTEE (SEP 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-

(c) The amount of the bid guarantee shall be 20% percent of the bid price or $3,000,000, whichever is less.-

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.-

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(End of clause)

(End of Summary of Changes)

SECTION 323113

CHAIN LINK FENCE AND GATES

NOTE: HIDDEN TEXT IS INCLUDED WITHIN THIS SPEC TO ASSIST IN THE EDITING OF THIS DOCUMENT. ONCE EDIT IS COMPLETE, DELETE ALL HIDDEN TEXT SO THAT IT DOES NOT APPEAR IN THE FINAL DOCUMENT. BE SURE TO DELETE THIS PARAGRAPH.

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

A. Wiring for Gate Systems: Section 260505.

B. Gate Systems: Section 323114.

1.02 REFERENCES

A. Comply with ASTM A 53 for requirements of Schedule 40 piping.

B. Welding Standards: "Structural Welding Code - Steel, AWS D1.1" or "Structural Welding Code - Sheet Steel, AWS D1.3", as applicable, by the American Welding Society (AWS Codes).

C. Materials and Finishes Standard: ANSI/BHMA A156.18-1993, "American National Standard for Materials and Finishes".

1.03 DEFINITIONS

A. Height of Fence: Distance measured from the top of concrete footing to the top of fabric. Fences with buried fabric measured from finished grade to the top of fabric.

B. Company Field Advisor: An employee of the company which markets the security coils under their name and who is certified in writing by the Company to be technically qualified in design and installation of security coils or an employee of an organization certified by the foregoing company to be technically qualified in design and installation of security coils.

1.04 SUBMITTALS

A. Shop Drawings: Complete detailed drawings for each height and style of fence and gate required. Include separate schedule for each listing all materials required and technical data such as size, weight, and finish, to ensure conformance to specifications.

B. Product Data: Manufacturer's catalog cuts, specifications, and installation instructions for each item specified.

C. Samples:

1. Fence Fabric: Minimum one square foot.
2. Fence and Gate Posts: One foot long each.
3. Miscellaneous Materials and Accessories: One each.
4. If directed, provide samples from materials delivered to the Site for installation.

D. Quality Control Submittals:
1. Test Reports: Security coils test procedure report.
2. Certificates: Affidavit required under Quality Assurance Article.

1.05 QUALITY ASSURANCE

A. Comply with standards of the Chain Link Fence Manufacturer's Institute.

B. Provide steel fence and related gates as a complete compatible system including necessary erection accessories, fittings, and fastenings.

C. Posts and rails shall be continuous without splices.

D. Security Coils Certification: Affidavit by the Company Field Advisor, certifying that the installation of the security coils meets the Contract requirements.

1.06 MAINTENANCE

A. Extra Materials: Furnish additional 800 feet of 30-inch security coils. Store where directed. Furnish rachet tool and sufficient quantity of stainless steel twistable wire ties for installation of coils by facility personnel.

1.07 DELIVERY

A. Coordinate delivery of anchors and other accessories to be built into other Work, to avoid delay. Furnish instructions and templates as required for accurate location.

B. The manufacturer of the prison lock keys shall notify the Director's Representative {EIC Name} {EIC Phone} and the Deputy Superintendent for Administration at {Facility Name}, {DSA Name} {DSA Phone} a minimum of two days in advance of shipping keys. Ship all prison lock keys direct from manufacturer, through the United States Postal Service, via Registered Mail, Restricted Delivery, Return Receipt Requested, to:

Deputy Superintendent for Administration
(Name of Deputy Superintendent)
(Name of Facility)
(Address of Facility)
(City, State and Zip Code)

1.10 UNIFORMITY OF DETENTION HARDWARE

A. Provide detention hardware specified in this section from the same manufacturer.

B. The existing equipment at {facility name} is _____. Provide detention hardware specified in this section from _____.

PART 2 PRODUCTS

2.01 COMPANIES

A. Allied Tube & Conduit Corp., 16100 S. Lathrop Ave., Harvey, IL 60426, (800) 882-5543.

B. Anchor Die Cast Inc., PO. Box 1197, Harrison, AR 72601, (870) 741-6193.

C. Anchor Fence, 6500 Eastern Ave., Baltimore, MD, (410) 633-6500.

D. Folger Adam Security, Inc., 16300 West 103rd St., Lemont, IL 60439-9653, (800) 966-6739, www.folgeradamsecurity.com.

E. RhinoTube LLC, North American Steelworks, 17 Wood St., West Haven, CT 06516, (800) 466-8600

F. Southern Steel, 4634 South Presa St., San Antonio, TX 78223, (210) 533-1231, www.southernsteel.com.

G. Tymetal Corporation, Inc., 1626 Rt. 9, Clifton Park, NY 12065, (518) 383-6084, www.tymetal.com

H. Wheatland Tube Company, One Council Ave., Wheatland, PA 16161, (724) 342-6851

2.02 MATERIALS

A. Class B Steel Tubing (Option):
1. SS-40 Fence Pipe by Allied Tube & Conduit Corp.
2. RhinoShield R-40 Tubing by RhinoTube LLC.
3. WT-40 Fence Pipe by Wheatland Tube Company.

2.03 STEEL FRAMEWORK (FOR FENCES UP TO 6'-0" HIGH)

A. End Posts, Corner Posts and Pull Posts:
1. Pipe: 2.375 inches OD, 3.65 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 2.375 inches OD, 3.11 pounds per linear foot.
3. Square Tubing: 2 inches OD, 3.60 pounds per linear foot.

B. Line Posts:
1. Pipe: 1.90 inches OD, 2.72 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 1.90 inches OD, 2.28 pounds per linear foot.

2.04 STEEL FRAMEWORK (FOR FENCES 6'-1" - 10'-0" HIGH)

A. End Posts, Corner Posts and Pull Posts:
   1. Pipe: 2.875 inches OD, 5.79 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 2.875 inches OD, 4.64 pounds per linear foot.
   3. Square Tubing: 2.50 inches OD, 5.70 pounds per linear foot.

B. Line Posts:
   1. Pipe: 2.375 inches OD, 3.65 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 2.375 inches OD, 3.11 pounds per linear foot.

C. Light Posts:
   1. Pipe: 4 inches OD, 9.11 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 4 inches OD, 6.56 pounds per linear foot.

2.05 STEEL FRAMEWORK (FOR FENCES 10'-1" - 16' HIGH)

A. End Posts, Corner Posts and Pull Posts:
   1. Pipe: 4 inches OD, 9.11 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 4 inches OD, 6.56 pounds per linear foot.

B. Line Posts:
   1. Pipe: 2.875 inches OD, 5.79 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 2.875 inches OD, 4.64 pounds per linear foot.

C. Light Posts:
   1. Pipe: 4 inches OD, 9.11 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 4 inches OD, 6.56 pounds per linear foot.

2.06 STEEL FABRIC

A. One-piece widths for fence heights up to 12'-0".

B. Chain link, 2 inch mesh, No. 9 gauge; 3/8 inch mesh, No. 11 gauge.

C. Selvages: Top edge and bottom edge knuckled.

D. Selvages: Top edge and bottom edge twisted and barbed.

2.07 SWING GATE POSTS

A. Single width of gate up to 6'-0" wide and less than 10'-0" high:
   1. Pipe: 2.875 inches OD, 5.79 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 2.875 inches OD, 4.64 pounds per linear foot.
   3. Square Tubing: 2.50 inches OD, 5.70 pounds per linear foot.

B. Single width of gate 6'-0" to 12'-0" wide or over 10'-0" high:
   1. Pipe: 4 inches OD, 9.11 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 4 inches OD, 6.56 pounds per linear foot.
   3. Square Tubing: 3 inches OD, 9.10 pounds per linear foot.

C. Single width of gate 12'-0" to 18'-0" wide:
   1. Pipe: 6.625 inches OD, 18.97 pounds per linear foot (Schedule 40).

D. Single width of gate over 18'-0" wide:
1. Pipe: 8.625 inches OD, 24.70 pounds per linear foot (Schedule 30).

2.08 SWING GATE FRAMES

A. Up to 6'-0" high, and leaf width 8'-0" or less.
1. Pipe: 1.660 inches OD, 2.27 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 1.660 inches OD, 1.84 pounds per linear foot.
3. Square Tubing: 1.50 inches OD, 1.90 pounds per linear foot.

B. Height: 6'-0" - 12'-0", or leaf width exceeding 8'-0":
1. Pipe: 1.90 inches OD, 2.72 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 1.90 inches OD, 2.28 pounds per linear foot.
3. Square Tubing: 2 inches OD, 2.60 pounds per linear foot.

C. Height: 12'-1" - 20'-0".
1. Pipe: 2.375 inches OD, 3.65 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 2.375 inches OD, 3.11 pounds per linear foot.

D. Assemble gate frames by welding or with special steel fittings and rivets for rigid connections. Install mid-height horizontal rails on gates over 10 feet high. When width of gate leaf exceeds 10 feet, install mid-distance vertical bracing of the same size and weight as frame members. When either horizontal or vertical bracing is not required, provide truss rods as cross bracing to prevent sag or twist.

2.09 SLIDING GATE FRAMEWORK

A. Posts
1. Pipe: 4 inches OD, 9.11 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 4 inches OD, 6.56 pounds per linear foot.

B. Frames:
1. Pipe 1.90 inches OD, 2.72 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 1.90 inches OD, 2.28 pounds per linear foot.
3. Square Tubing: 2 inches OD, 2.60 pounds per linear foot.

2.09 SWING GATE HARDWARE

A. Type "A" Gates: As specified in Section 02824.
B. Type "B" Gates:
1. Hinges: Style M.61, Heavy Industrial Offset Ball and Socket Hinge by Anchor Die Cast Inc.

2. Prison Deadlock: 1 - Folger Adam No.86 or Southern Steel No.1080A-2.
3. Cylinder Shields: 2 - Folger Adam No. 2CS or Southern Steel No. 219 x US32D.

C. Type "C" Gates:
1. Hinges: Style M 61, Heavy Industrial Offset Ball and Socket Hinge by Anchor Die Cast.

2. Locks: Drop bar type complete with flush plate set in concrete. For double gates provide full height drop bar and keeper. Padlock eye shall be an integral part of latch construction.
3. Holdbacks for Vehicle Gates: Type which automatically engages the gate leaf and holds it in open position until manually released.

2.10 SLIDING GATE HARDWARE

A. Overhead Type, Electrically Operated: As specified in Section 02824.

B. Overhead Type, Manually Operated:
1. Trolley: 2 ton capacity, Style 3569, with aprons by Columbus McKinnon Corp., 140 John James Audubon Pky., Amherst, NY 14228-1197, (800) 888-0985.
2. Manual Sliding Gate Hardware System, by Tymetal Corporation, Inc.
3. Lock: Manual operation Folger Adam 806ER or Southern Steel 1050RD, keyed both sides, with 2CS cylinder shields as required. Key individually with 7 keys.

C. Cantilever type with enclosed tracks and integral latch assembly:
1. Manual Sliding Gate Hardware System, by Tymetal Corporation, Inc., or Anchor Fence.
3. Lock: Manual operation Folger Adam 806ER or Southern Steel 1050RD, keyed both sides, with 2CS cylinder shields as required. Key individually with 7 keys.

2.11 FABRICATION AND MANUFACTURE

A. Personnel Gates, Type "A": As specified in Section 02824.

B. Lock Box for Type "B" Gates: Fabricate lock box with channels, plates, angles and flat bars as indicated. Provide removable cover plate held in place with TORX center pin security machine screws. Locate removable cover plate on side of gate opposite threat side. If removable cover plate must be installed on threat side, secure plate with TORX PLUS center pin security machine screws. Galvanize entire assembly.

2.12 KEYING

A. Key locks as specified and incorporate a keying schedule into the hardware schedule for approval.
1. Key changes shall be different from changes previously used at this Facility, except as noted.
2. Record key changes, to avoid future unintended duplication.
3. Furnish seven keys for each change, except as noted.
4. Furnish extended shank keys when required.
5. Key locks as specified in Section 02824.
6. Key locks as follows:

2.13 MISCELLANEOUS MATERIALS AND ACCESSORIES

A. Rails and Post Braces:
   1. Pipe: 1.660 inches OD, 2.27 pounds per linear foot (Schedule 40).
   2. Class B Steel Tubing: 1.660 inches OD, 1.84 pounds per linear foot.

B. Fittings and Post Tops: Steel, wrought iron, or malleable iron.
   1. Fasteners: Tamper-resistant cadmium plated steel screws.

C. Stretcher Bars: One piece equal to full height of fabric, minimum cross-section 3/16 inch by 3/4 inch.

D. Metal Bands (for securing stretcher bars): Steel, wrought iron, or malleable iron.

E. Wire Ties: Conform to American Steel Wire gauges.
   1. For tying fabric to line posts, rails and braces: 9 gauge (.1483 inch) steel wire.
   2. For tying tension wire to fabric: 11 gauge (.1205 inch) steel hog rings.
   3. For tying security coils to fence fabric, barbed wire, or adjacent coils: 16 gauge (.0625 inch) 300 Series stainless steel wire.
   4. For splicing adjoining sections of security coils: 16 gauge (.0625 inch) 300 Series stainless steel wire, or 11 gauge (.1205 inch) 300 Series stainless steel hog rings.
   5. For splicing overlapped fabric at bottom rail: 11 gauge (.1205 inch) steel hog rings.

F. Truss Rods: 3/8-inch diameter.

G. Concrete: Portland Cement concrete having a minimum compressive strength of 2500 psi at 28 days.

H. Spiral Paper Tubes:
   1. Sonotube by Sonoco Products Co., North Second St., Hartsville, SC 29550, (800) 377-2692.
   2. Sleek/tubes by Jefferson Smurfit Corp., P.O. Box 66820, St. Louis, MO 63166, (314) 746-1100.

I. Cold Galvanizing Compound: Single component compound giving 93 percent pure zinc in the dried film, and meeting the requirements of DOD-P-21035A (NAVY).

J. Tension Wire: 7 gauge coiled spring steel wire.

K. Angle Beams, I Beams, and Steel Shapes: ASTM A 36.

L. Bolts and Nuts: ASTM A 307, Grade A.

M. Wedge Anchors: 1/2 inch stainless steel, Style TS-12-234SS by Unifast Industries Inc., 45 Gilpin Ave., Hauppauge, NY 11788, (516) 348-0290.

N. Shrink-Resistant Grout (Ferrous): Factory-packaged, non-catalyzed, ferrous aggregate mortar grouting compound selected from the following:

1. Embeco 636 by Master Builders, 23700 Chagrin Blvd., Cleveland, OH 44122, (800) 227-3350.
2. Ferrolith G-NC by Sonneborn, Chemrex, Inc., 57-46 Flushing Ave., Maspeth, NY 11378, (800) 433-9517.
3. Ferro-Grout by L&M Construction Chemicals, 14851 Calhoun Rd., Omaha, NE 68152, (800) 362-3331.
4. Vibra-Foil by A.C. Horn, Inc., Tamm Industries, 7405 Production Dr., Mentor, OH 44060, (800) 862-2667.

O. Aluminum Slats:
1. Size: 1-7/8 inches wide and 1-3/4 inches wide by .009 inch to .0105 inch thick.
2. Aluminum Alloy: 5052 H19 or 6011 T81.
3. Finish: Baked enamel, color as indicated or directed.

P. Crushed Stone, All Gradations: Crushed stone only. Comply with all material, physical, and gradation requirements of DOT Article 703-02.

Q. Filter Fabric (Separation): Amoco CEF 4545, CEF 4551; Exxon Chemical Co. GTF 150 EX; Mirafi Inc. 140N, 140NL; Nicolon Corp. Filterweave 70/06; Phillips Fibers Corp. Supac 4NP, 5NP, 7NP; Wellman Quline Inc. Q60, Q80, Q100.

2.14 BARBED WIRE

A. Two strand 12-1/2 gauge steel wire, with 14 gauge 4-point steel barbs spaced 5 inches oc.

B. Extension Arms: Pressed steel, wrought iron, or malleable iron, complete with provision for anchorage to posts (including light posts) and attaching 3 rows of barbed wire to each arm.
1. Type: Single 45-degree arm; one for each post.
2. Type: Single vertical arm; one for each post.
3. Type: Vee-Type with 2 arms at 45 degree to vertical; one set for each post.

2.15 FIVE FOOT DIAMETER SECURITY COILS (OPTION, EITHER A. OR B. BELOW)

A. One hundred and one coil loops of a single helical coil of spring quality austenitic stainless steel conforming to U.S. Army MERADCOM drawing 13220E0889 and 13220E2744 except that the outside diameter shall be 60 inches (plus or minus 4 inches) with 45 (plus or minus one) barb clusters per revolution.
1. Adjacent coil loops shall be alternately spot welded at 13 points of equal spacing about the perimeter. Spot welding shall survive a minimum 200-pound force per weld loaded uniformly about the periphery of the coil, as specified in barbed tape procedure.
2. Two jacketed stainless steel wire ropes, 7 by 7 strand 3/64 inch by 5/64 inch minimum diameter, per MIL-W-83420, Type II composition B shall be attached symmetrically about the circumference, along the length of the obstacle, to each coil loop, to preset the maximum barbed tape

opening and the 50 foot (plus or minus 2 feet) length. Each wire rope with clips shall be capable of satisfying the 50 pound pull test of Paragraph 4. 5. 2. 1. 1., MIL-B-427675B.

B. Concertina Type: Minimum 51 coil loops fabricated by wrapping a barbed tape made of AISI 430 stainless steel, whose hardness is optional, around a 300 series austenitic stainless steel core wire. Diameter of the core wire shall be 0.098 inch plus or minus 0.002 inch and the tensile strength shall be a minimum of 140,000 psi. The barbs shall be offset from the plane of the core wire. Outside diameter of the coil loops shall be 60 inches (plus or minus 2 inches). Each loop shall consist of 45 (plus or minus one) clusters of four needle sharp barbs on four-inch centers, each barb measuring a minimum of 1.2 inches in length.
   1. Adjacent coil loops shall be attached alternately at 9 points of equal spacing about the circumference with stainless steel flat metal band type clips approximately 0.375 inch wide and 0.065 inch thick. These clips shall prevent the coil loops from being pulled apart at each point of attachment when a minimum 200-pound load is applied, as specified in the barbed tape test procedure. Wrapping of barbed tape about the line wire shall be accomplished within the tolerances specified in MIL-B-52489E, except that the tape shall be wrapped a minimum of 230 degrees and shall satisfy the push test specified therein.
   2. Extended length shall be 25 feet (plus or minus 2 feet), with a maximum spacing between loops of 12 inches.

2.16 THIRTY INCH DIAMETER SECURITY COILS (OPTION, EITHER A. OR B. BELOW)

A. One hundred and one coil loops of a single helical coil of spring quality austenitic stainless steel conforming to U.S. Army MERADCOM drawing 13220E0889 and 13220E2744 except that the outside diameter shall be 30 inches (plus or minus 2 inches) with 24 (plus or minus 1) barb clusters per revolution.
   1. Adjacent coil loops shall be alternately spot welded at 5 points of equal spacing about the perimeter. Spot welding shall survive a minimum 200-pound force per weld loaded uniformly about the periphery of the coil, as specified in the barbed tape test procedure.
   2. One jacketed stainless steel wire rope, 7 by 7 strand 3/64 inch by 5/64 inch minimum diameter, per MIL-W-83420, Type II composition B, shall be attached, along the length of the obstacle to each coil loop to preset the maximum barbed tape opening and the 50 foot (plus or minus 2 feet) length.
   3. The wire rope shall be attached with clips as required and the wire rope with clips shall be capable of satisfying the 50-pound pull test Paragraph 4. 5. 2. 1. 1., Specification MIL-B-52775B.

B. Concertina Type: Minimum 51 coil loops fabricated by wrapping a barbed tape made of AISI 430 stainless steel, whose hardness is optional, around a 300 series austenitic stainless steel core wire. Diameter of the core wire shall be 0.098 inch plus or minus 0.002 inch, and the tensile strength shall be a minimum of 140,000 psi. The barbs shall be offset from the plane of the core wire. Outside diameter of the coil loops shall be 30 inches (plus or minus 2 inches). Each loop shall

consist of 24 (plus or minus one) clusters of four needle sharp barbs on four-inch centers, each barb measuring a minimum of 1.2 inches in length.

1. Adjacent coil loops shall be attached alternately at 5 points of equal spacing about the circumference with stainless steel flat metal band type clips approximately 0.375 inch wide and 0.065 inch thick. These clips shall prevent the coil loops from being pulled apart at each point of attachment when a minimum 200-pound load is applied, as specified in the barbed tape test procedure. Wrapping of barbed tape about the line wire shall be accomplished within the tolerances specified in MIL-B-52489E, except that the tape shall be wrapped a minimum of 230 degrees and shall satisfy the push test specified therein.
2. Extended length shall be 25 feet (plus or minus 2 feet), with a maximum spacing between loops of 12 inches.

2.17 SOURCE QUALITY CONTROL

A. Test Procedure - Barbed Tape Security Coils: The company producing the security coils shall have test facilities available which can demonstrate that the security coils meets the following requirements.

1. Sampling; before delivery to job site: Samples for quality conformance inspections shall be selected in accordance with MIL-STD-105, sampling level S-1, AQL 2.5. A unit of product for sampling shall be one complete unit no less than ten feet in length.
2. Test Equipment: The test equipment for applying and measuring force shall be capable of measuring a minimum force of 200 pounds and shall be calibrated prior to each test with standards traceable to the National Bureau of Standards.
3. Test Specimen: The test specimen shall consist of 2 segments of barbed tape, taken from adjacent coil loops, each at least one- foot-long, containing and centered upon a point of attachment. This attachment shall be prepared in the normal course of production.
4. Test Preparation: A pair of one inch, plus or minus 0.1 inch, cubic back-up blocks shall be centered on each side of the attachment point, in as close as possible contact with the major surfaces of the barbed tape. Barbs adjacent to the attachment point may be removed to simplify the testing process. Each leg of each barbed tape segment shall be bent at a 90-degree angle so that each segment has a major surface in contact with 3 adjoining faces of a back-up cube and so that ends of each segment are parallel to each other and to the axis of the attachment. Each back-up cube shall then be restrained in place by spot welding a straining strap to each leg of a segment so that the strap is in continuous contact with the cube face opposite the point attaching the 2 segments.
5. Test: Two ends of one of the test segments, prepared per above, shall be joined and rigidly attached to a structure so that the retaining structure, with said attachment, will survive a minimum tensile load of 200 pounds without deflection or slippage. The 2 ends of the opposite segment shall be joined and attached to the test apparatus so that said attachment will survive a minimum tensile load of 200 pounds, without any slippage. The test equipment above shall then be used to apply up to a 200-pound minimum force (through the adjacent coil loop segment attachment point) away from the rigid retaining structure. After reaching a

minimum 200 pound force, as measured by the test equipment, this force shall be maintained continuously for a least 30 seconds.

6. Test Results: At the completion of the 30-second pull test, the test specimen shall be removed from the attachments to the rigid retaining structure and to the test equipment. The back-up blocks shall be removed from the test specimen and each segment of the barbed tape shall be examined for breaks, cracks, or separation around their mutual attachment point. The test specimen shall have failed this test if any of the above have occurred or a 200-pound minimum pull cannot be applied continuously for 30 seconds.

2.18 FINISHES

A. Steel Framework:
   1. Pipe: Galvanized in accordance with ASTM A 53, 1.8 ounces zinc per square foot.
   2. Square Tubing: Galvanized in accordance with ASTM A 123, 2.0 ounces zinc per square foot.
   3. Class B Steel Tubing: Exterior; 1.0 ounces zinc per square foot plus chromate conversion coating and clear polyurethane. Interior; zinc rich organic coating.
   4. Polyvinyl Chloride (PVC): Black plastic finish, fusion bonded to galvanized metal, minimum thickness 10 mils.

B. Fabric; one of the following:
   1. Galvanized Finish: ASTM A 392 class II zinc coated after weaving, with 2.0 ounces per square foot.
   2. Aluminized Finish: ASTM A 491 aluminum coated with 0.40 ounces per square foot.
   3. Polyvinyl Chloride (PVC) Finish: Black plastic, fusion bonded to galvanized wire, breaking strength, 1290 pounds, minimum thickness 7 mils.

C. Fence and Gate Hardware, Miscellaneous Materials, Accessories:
   1. Wire Ties and Hog Rings: Galvanized Finish, ASTM A 90 1.6 ounces zinc per square foot, or aluminized finish, ASTM A 809 0.40 ounces per square foot.
   2. Hardware and Miscellaneous Items: Galvanized Finish, ASTM A 153 (Table 1).
   3. Extension Arms: Hot-dip galvanized after fabrication, ASTM 123, 2.0 ounces zinc per square foot.
   4. Angle Beams, I Beams, and Steel Shapes: Galvanized in accordance with ASTM A 123, 2.0 ounces zinc per square foot.
   5. PVC coated, per manufacturer's standards.

D. Barbed Wire and Tension Wire; one of the following:
   1. Galvanized Finish: ASTM A 121 class 3, 0.80 ounces per square foot.
   2. Aluminized Finish: ASTM A 585 class 2, 0.30 ounces per square foot.
   3. PVC Coated, per manufacturer's standards.

PART 3 EXECUTION

3.01 PREPARATION

A. Do not begin installation of any fencing until finished grading has been completed.

B. Clear and grub along fence line as required to eliminate growth interfering with alignment. Remove debris from State property.

3.02 INSTALLATION

A. Space posts equidistant in the fence line with a maximum of 10 feet on center. For fences 16 feet and higher space posts a maximum of 8 feet on center.

B. Setting Posts in Earth: Drill holes for post footings Set posts in center of hole and fill hole with concrete. Plumb and align posts. Vibrate or tamp concrete for consolidation. Finish concrete in a dome shape above finish grade elevation to shed water. Do not attach fabric to posts until concrete has cured a minimum of 7 days.

C. Setting Posts in Rock: Drill holes into solid rock one inch wider than post diameter, 18 inches deep for end, pull, corner, and gate posts, and 12 inches deep for line posts. Set posts into holes and fill annular space with shrink-resistant grout.

D. If post tops or extension arms will not be installed prior to impending rain, provide temporary covers over tops of posts to prevent posts from filling with water.

E. Locate corner posts at corners and at changes in direction. Use pull posts at all abrupt changes in grade and at intervals no greater than 500 feet. On runs over 500 feet, space pull posts evenly between corner or end posts. On long curves, space pull posts so that the strain of the fence will not bend the line posts.

F. Install top rail continuously through post tops or extension arms, bending to radius for curved runs. Install expansion couplings as recommended by fencing manufacturers.

G. Install bottom and intermediate rails in one piece between posts and flush with post on fabric side using special offset fittings where necessary.

H. Brace corner posts, pull posts, end posts, and gate posts to adjacent line posts with horizontal rails.

I. Diagonally brace corner posts, pull posts, end posts, and gate posts to adjacent line posts with truss rods and truss rod tighteners.

J. Attach fabric to security side of fence. Maintain a 2-inch clearance above finished grade except when indicated otherwise. Thread stretcher bars through fabric using one bar for each gate and end post and 2 for each corner and pull

post. Pull fabric tight so that the maximum deflection of fabric is 2 inches when a 30-pound pull is exerted perpendicular to the center of a panel. Maintain tension by securing stretcher bars to posts with metal bands spaced 15 inches oc. Fasten fabric to steel framework with wire ties spaced 12 inches oc for line posts and 24 inches oc for rails and braces. Bend back wire ends to prevent injury. Tighten stretcher bar bands, wire ties, and other fasteners securely.

1. When fabric height exceeds 12 feet, overlap horizontal splices a minimum of 6 inches at the intermediate rail, and secure each layer of fabric to the rail with wire ties spaced 24 inches oc. Offset ties so maximum distance between any tie does not exceed 12 inches.
2. When fabric is indicated to be buried, the buried portion of fabric shall be separate from the main fence fabric. Overlap fence fabric and buried fabric a minimum of 6 inches at the bottom rail. Secure fence fabric to bottom rail with wire ties spaced 24 inches oc. Secure buried fabric to fence fabric, above the bottom rail, with hog rings spaced 12 inches oc. The buried fabric shall not be secured directly to the bottom rail.
   Note: To prevent settlement of the buried fabric during backfill operations, the buried fabric may be temporarily attached to the bottom rail. Remove all such temporary ties after backfilling is complete. Should any fence components become distorted as a result of installation or settlement of buried fabric, untie all fabric, re-align fence members, and re-tie fabric.
3. If approved pre-formed ties are used to secure the fence fabric, the "pigtail" for all ties at the 8 foot high level and below shall be bent down parallel with the fence posts and/or rails.

K. Position bolts for securing metal bands and hardware so nuts are located opposite the fabric side of fence. Tighten nuts and cut off excess threads so no more than 1/8 inch is exposed. Peen ends of all bolts below a height of 10 feet to prevent loosening or removal of nuts.

1. Secure post tops and extension arms with tamper-resistant screws.

L. Install gates plumb and level and adjust for full opening without interference. Install ground-set items in concrete for anchorage, as recommended by fence manufacturer. Adjust hardware for smooth operation and lubricate where necessary.

M. Fence Alarm System: Where a fence mounted alarm/detection system is required, install the fence in a manner that will permit satisfactory operation of the alarm/detection system. Conform to the following:

1. Eliminate all fabric vibrations and rattles caused by wind against posts and rails. Install additional wire ties above quantity specified if deemed necessary to prevent vibrations and rattles.
2. Eliminate all rattles from stretcher bar bands, truss rods, rail and post clamps, and other hardware.

N. Tension Wire: Where tension wire is indicated or required, weave tension wire through fabric or fasten with hog rings spaced 24 inches oc. Tie tension wire to posts with 9 gauge wire ties.

O. Security Coils (except Concertina Type):

1. Stretch to full preset length, determined by applying a tensile load of not more than 50 pounds at each end of the spacer wire. Attach successive units to each other to form one continuous obstacle. After the first unit is installed, orient the beginning of the second unit so that (spot weld) attachments of the second unit approximately match those at the end of the first unit. Attach the last coil loop of the first unit to the first coil loop of the second unit, with stainless steel twistable wire ties (para. 3.7. MIL-B-52775B) at the locations where the coils would have been spot welded if one continuous unit had been fabricated. Where security coils are placed on the ground, anchor each coil to the ground at 5-foot intervals using anchors formed from No. 3 reinforcement bars. Each reinforcement bar anchor shall have a 2-inch hook formed at the top and shall be driven a minimum of 30 inches into the ground.
2. Secure coils to the side of the fence by erecting the material as described for ground installation. Attach each coil loop (or pair of coil loops where adjacent coils are spot welded) to the fence fabric with stainless steel twistable wire ties. The point of attachment shall be made where the security coils are tangent to (intersects) the fence, after it has been expanded to its full length, without tangles and free of distortion. (The location of the point of attachment to the fence will vary as the security coil rotates slightly about its longitudinal axis as it is extended to its full length.)

P. Concertina Type Security Coils: Install in accordance with the manufacturer's printed instructions and meeting the following minimum requirements:
1. Install security coils with coil loops (apertures) equally spaced 12 inches oc (plus or minus 2 inches).
2. Secure coils to the top of the fence by attaching each coil loop where it intersects the barbed wire and the top of the fabric with twistable stainless steel wire ties.
3. Secure coils to the side of the fence by attaching each coil loop where it intersects the fence fabric, and any adjacent coils, with twistable stainless steel wire ties. Attach adjacent coils to each other where every other loop intersects or at 36 inches oc maximum.
4. Where security coils are placed on the ground, anchor each coil to the ground at 5-foot intervals using anchors formed from No. 3 reinforcement bars. Each reinforcement bar anchor shall have a 2-inch hook formed at the top and shall be driven a minimum of 30 inches into the ground.
5. Splices: Splice successive units to adjacent coil loops by overlapping end loops a minimum of two barbed clusters to form one continuous obstacle.
   a. Permanently attach barb roots together with twistable stainless steel wire ties or stainless steel hog rings.
   b. Cross-tie barb roots with 2 stainless steel twistable wire ties or 2 stainless steel hog rings on both barbs of a 2-barb splice or the center barb of a 3-barb splice, and at all points of the splice where factory clips are installed on adjoining sections of continuous coil.

Q. Aluminum Slats: Install where indicated aluminum slats in every diagonal run of links in both directions for the full height of the fence. Crimp and staple with monel staples at the top and bottom of fabric. Overlap and staple spliced slats.

R. Wire brush and repair welded and abraded areas of galvanized surfaces with one coat of cold galvanizing compound.

S. Restore disturbed ground areas to original condition. Topsoil and seed to match adjacent areas.

3.03 ADJUSTING

A. Adjust operative units and equipment to work freely and easily, ready for use. Field lubricate operating and locking systems in accordance with the manufacturer's maintenance instructions. Adjust equipment when the temperature is approximately 70 degrees F.

END OF SECTION

SECTION 08520

ALUMINUM WINDOWS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Fixed aluminum windows.

B. Projecting aluminum windows.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Joint Sealers: Section 07900.

B. Glass and Glazing: Section 08800.

C. Security Glazing: Section 08811.

1.03 REFERENCES

A. Voluntary Specifications for Aluminum Prime Windows & Sliding Glass Doors, ANSI/AAMA 101, sponsored and published by American Architectural Manufacturers Association.

1.04 SUBMITTALS

A. Shop Drawings: Show fabrication details and connections to adjacent construction.

B. Product Data: Catalog sheets, specifications, and installation instructions for each type window unit.

C. Samples:
   1. Corner section of frame, sash, and insect screen.
   2. Color Samples: Manufacturer's standard color finishes.

1.05 QUALITY ASSURANCE

A. Certification: Each window unit shall bear the AAMA Certification label.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver windows in protective containers, marked with identification for window location.

B. Store and handle windows in a manner that will not cause damage to the finish.

PART 2 PRODUCTS

2.01 ALUMINUM WINDOW TYPES/GRADE/PERFORMANCE CLASS

A. Comply with the ANSI/AAMA 101 requirements for the following window designation(s):
   1. P-HC40 Projected Window, Heavy Commercial Grade.
   2. F-HC40 Fixed Window, Heavy Commercial Grade.

2.02 MATERIALS

A. Frame and Sash Members: Extruded Aluminum, 6063 alloy T5 temper.

B. Fasteners: Aluminum or Stainless steel.
   1. Exposed Fasteners: Phillips flat-head screws. Match the finish of the member being fastened.

C. Compression Weatherstripping:
   1. Neoprene Gaskets: ASTM D 2000.
   2. PVC Gaskets: ASTM D 2287.
   3. Expanded Neoprene Gaskets: ASTM C 509, Grade 4.

D. Sliding Weatherstripping:
   1. Woven Pile: AAMA 701.2.

E. Thermal Break: Provide manufacturer's standard continuous thermal barrier.

F. Insect Screens: Manufacturer's standard removable unit for each operable sash, designed not to interfere with sash operation.
   1. Frame: Extruded or formed aluminum 0.040 inch min wall thickness, mitred or coped joints, concealed mechanical fasteners.
   2. Retainer Spline: Vinyl.
   3. Screen Mesh:
      a. Aluminum mesh, 18 x 16, .011 inch wire diameter, black or charcoal color finish; FS RR-W-365, Type VII.

G. Bituminous Coating: Cold-applied asphalt mastic complying with SSPC-PAINT 12, compounded for 30-mil thickness per coat.

2.03 FINISHES

A. Prepare the aluminum surfaces for finishing in accordance with the Aluminum Association recommendations and standards.

B. Finish all exposed aluminum surfaces. Process all components of each assembly simultaneously to attain uniform color.

C. Finish: Color Anodized, NAAMM AA-M21C22A42, heavy colored, (minimum thickness 0.7 mils), integral color anodized finish.

1. Color: Dark Bronze

PART 3 EXECUTION

3.01 EXAMINATION

A. Verification of Conditions: Examine surfaces to receive aluminum windows for defects that will adversely affect the execution and quality of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. Install the Work of this Section in accordance with the manufacturer's printed instructions, except as shown or specified otherwise.

B. Paint aluminum surfaces in contact with masonry or incompatible metals with bituminous coating.

C. Anchor window units securely in place, plumb, level, aligned, without warp of frames or sash.

3.03 ADJUSTING

A. Adjust operating sash and hardware for smooth operation and weathertight closure. Lubricate hardware and other moving parts, except parts in contact with weatherstripping.

3.04 CLEANING

A. Clean aluminum surfaces promptly after installation.

END OF SECTION

SECTION 02843

STEEL PIPE BOLLARDS

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

A. Earthwork: Section 02300.

B. Cast-in-Place Concrete: Section 03300.

C. Asphalt Concrete Paving: Section 02741

D. Portland Cement Concrete Road Paving: Section 02751

PART 2 PRODUCTS

2.01 MATERIALS

A. Galvanized Steel Pipe: 8 inches diameter, standard weight (Schedule 40).

B. PVC Sleeve (yellow)

PART 3 EXECUTION

3.01 INSTALLATION

A. Set pipe in center of hole and brace plumb.

B. Fill annular space around pipe with concrete.

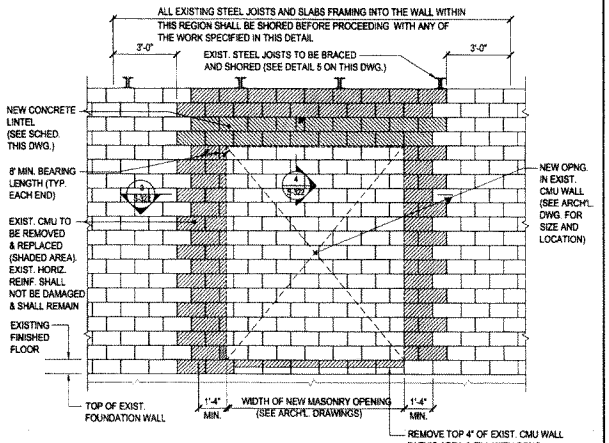
C. Fill pipe with concrete. Dome concrete above top edge of pipe to shed water.

D. Remove braces after concrete has set.

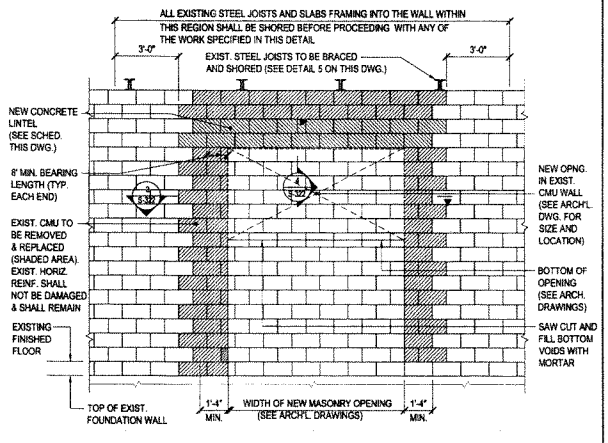
E. Apply one coat of primer and one coat of finish paint in accordance with the manufacturer's printed instructions.

F. Install PVC sleeve.

END OF SECTION



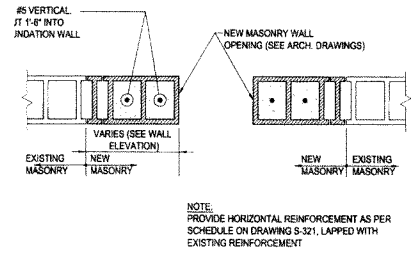
1 TYPICAL DETAIL AT NEW DOOR OPENING AT EXISTING MASONRY WALL
SCALE: 3/8" = 1'-0"



2 TYPICAL DETAIL AT NEW WINDOW OPENING AT EXISTING MASONRY WALL
SCALE: 3/8" = 1'-0"

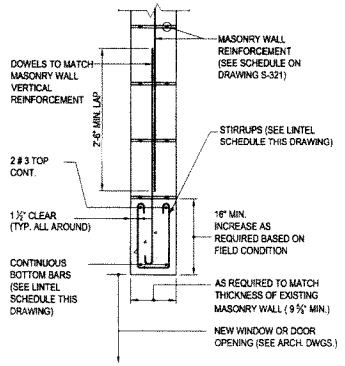
CONCRETE LINTEL SCHEDULE FOR NEW DOOR AND WINDOW OPENINGS AT EXISTING MASONRY WALLS

OPENING WIDTH	BOTTOM BARS	STIRRUPS (TYP. EA. END)	REMARKS
UP TO 3'-6"	2 # 5		
3'-8" TO 8'-4"	2 # 8	# 3 ⊏ 1, 1@3", BALANCE @ 6"	

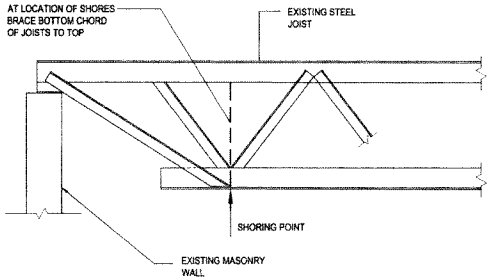


NOTE:
PROVIDE HORIZONTAL REINFORCEMENT AS PER SCHEDULE ON DRAWING S-321, LAPPED WITH EXISTING REINFORCEMENT

3 SECTION
SCALE: 3/4" = 1'-0"



4 SECTION
SCALE: 3/4" = 1'-0"



5 TYPICAL STEEL JOIST SHORING DETAIL
SCALE: 3/4" = 1'-0"

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CONSULTANT
BEARSCH COMPEAU KNUDSON ARCHITECTS & ENGINEERS, PC
41 CHENANGO STREET
BINGHAMTON, NEW YORK 13901
TEL: 607.772.0007
FAX: 607.723.4121

Thornton-Tomasetti Group
Thornton-Tomasetti Group, Inc.
51 Madison Avenue
New York, NY 10010
917.661.7800 • 917.661.7801 fax

CONTRACT:
CONSTRUCTION

TITLE:
PROVIDE ARMY AVIATION SUPPORT FACILITY EXPANSION

LOCATION:
ARMY AVIATION SUPPORT FACILITY
76 PATRIOT WAY
ROCHESTER, NY 14624

CLIENT:
DIVISION OF MILITARY AND NAVAL AFFAIRS

MARK	DATE	DESCRIPTION
FINAL	05/17/2006	FINAL SUBMISSION
100%	02/01/2006	100% SUBMISSION

PROJECT NUMBER:	42433 - C
DESIGNED BY:	LP
DRAWN BY:	JS
FIELD CHECK:	-
APPROVED:	-

SHEET TITLE:
MASONRY DETAILS AT EXISTING STRUCTURE

DRAWING NUMBER:
S-322

24x36 PLOT SHEET